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MIAO et al.(10) **Pub. No.: US 2021/0277056 A1**(43) **Pub. Date: Sep. 9, 2021**(54) **COMPOSITIONS CONTAINING, METHODS INVOLVING, AND USES OF NON-NATURAL AMINO ACID LINKED DOLASTATIN DERIVATIVES**(71) Applicant: **Ambrex, Inc.**, La Jolla, CA (US)(72) Inventors: **Zhenwei MIAO**, San Diego, CA (US);
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ABSTRACT

Disclosed herein are non-natural amino acids and dolastatin analogs that include at least one non-natural amino acid, and methods for making such non-natural amino acids and polypeptides. The dolastatin analogs can include a wide range of possible functionalities, but typically have at least one oxime, carbonyl, dicarbonyl, and/or hydroxylamine group. Also disclosed herein are non-natural amino acid dolastatin analogs that are further modified post-translationally, methods for effecting such modifications, and methods for purifying such dolastatin analogs. Typically, the modified dolastatin analogs include at least one oxime, carbonyl, dicarbonyl, and/or hydroxylamine group. Further disclosed are methods for using such non-natural amino acid dolastatin analogs and modified non-natural amino acid dolastatin analogs, including therapeutic, diagnostic, and other biotechnology use.